

ABSTRACT OF THE DISCLOSURE

Disclosed is a lightweight database migration framework that allows schema definitions and incremental migrations to be pushed out to target local computers. The framework facilitates complex migrations by using either SQL script or programmatic migration methods to target local computers. Developers can download migration scripts from messages that are pushed to them, by electronic mail or otherwise, to synchronize their local database without the need to visit a central server. A base schema may be maintained via a set of incremental migration scripts, which generally correspond to milestone releases. In some embodiments, the scripts are specified via an XML document. The framework deduces a target database's schema version and automatically applies the necessary migration path to reach a target schema version. There is no need to visit a central server. Thus, there is no need to manage and maintain centralized server. Also, the migration scripts can be SQL scripts or code that executes complex data manipulation. The system encodes version histories by storing the migration scripts in a history folder, and facilitates the creation and migration to an earlier arbitrary schema version by reversing the operations performed using migration scripts executed after the arbitrary schema was created.